

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A data transmitting apparatus for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising:

a storing portion means for storing first packets that compose the real time streams and second packets that compose the non-real time stream so that a first-in-first-out operation is respectively performed for every stream; and

a counter portion for counting an interval time of the first packets for every said real time stream; and

a scheduler portion for transmitting the first packets stored for every said real time stream in the storing portion every said interval time period, calculating a transmission end time of the first packets from the interval time and a transmission time of the first packets of each of the real time streams for every said real time stream and transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of said first packets are longer than the transmission times of the second packets~~transmitting means for transmitting the first packets stored in the storing means at predetermined intervals, transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of the first packets are longer than the transmission times of the second packets,~~

~~wherein the transmitting means is configured to calculate the respective transmission end times of each of the first packets that compose the real time streams based upon respective time intervals and transmission times of each of the first packets, and~~

~~wherein the storing means are associated with counting means configured to count the time intervals of each of the first packets prior to respectively issuing requests to transmit each of the first packets to the transmitting means.~~

2. (Canceled).

3. (Currently Amended) The data transmitting apparatus as set forth in claim 1, wherein the ~~transmitting means~~scheduler portion is configured to treat the ~~transmission times of the second packets multiplied by a positive coefficient that is smaller than 1~~times shorter than the transmission times of the second packets as new transmission times of the second packets ~~in case that~~when the second packets are not transmitted while a predetermined number of the first packets are transmitted.

4. (Currently Amended) A data transmitting method for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising ~~the steps of:~~

a first step of storing first packets that compose the real time streams and second packets that compose the non-real time stream so that a first-in-first-out operation is respectively performed for every stream;

~~transmitting the first packets stored at the storing step at predetermined intervals, transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of the first packets are longer than the transmission times of the second packets, wherein the respective transmission end times of each of the first packets that compose the real time streams are calculated based upon respective time intervals and transmission times of each of the first packets; and~~

a second step of counting the time intervals of each of the first packets that are stored at the storing step prior to respectively issuing requests to transmit each of

the first packets an interval time of the first packets for every said real time stream;
and

a third step of transmitting the first packets stored for every said real time stream in said first step every said interval time period, calculating a transmission end time of the first packets from the interval time and a transmission time of the first packets of each of the real time streams for every said real time stream and transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of said first packets are longer than the transmission times of the second packets.

5. (Canceled).

6. (Currently Amended) The data transmitting method as set forth in claim 4, wherein ~~the transmitting in said third step is performed by treating the transmission times of the second packets multiplied by a positive coefficient that is smaller than 1 times shorter than transmission times of the second packets are treated~~ as new transmission times of the second packets ~~in case that~~when the second packets are not transmitted while a predetermined number of the first packets are transmitted.

7. (Cancelled).

8. (Cancelled).